REMARKS

In the Office Action of July 30, 2004, claims 4-9, 12-15, and 22-26 are pending. Claims 9 and 22 are allowed. Claims 4, 7-9, 12, and 22-26 are independent claims from which all other claims depend therefrom. Claim 4 has been amended for clarification reasons and not for patentability reasons. Claim 27 is newly added.

Applicants noticed that there were multiple phrases for "a fault time" in claim 4. Applicants amended claim 4 to clear up this ambiguity in term usage.

Claims 4-6, 12, 14-15, and 23-26 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Byon (USPN 5,847,472) in view of Okada (2002/0091474).

Claims 4 and 12 are similar and are therefore described together. Claim 4 recites a restraints control module (RCM) for a vehicle that has one or more impact sensors. The RCM has a memory device, a controller, and a comparator. The memory device stores a deployment time of a deployment event. The controller determines when to deploy a restraint, stores the deployment time, and stores in the memory device a fault time corresponding to the deployment time. The fault time is indicative of a fault within the RCM, the impact sensors, or a combination thereof. The comparator compares the deployment time with a fault time and determines whether the fault time corresponds with the deployment time. Claim 12 recites an RCM having the limitations of claim 4. The RCM of claim 12 further includes the limitation of an indicator. The controller of claim 12 stores a deployment start time and duration, a fault time, and signals the indicator when the fault time corresponds to the deployment start time and duration.

The RCMs of claims 4 and 12 are capable of determining when a fault time of the RCM or of an impact sensor corresponds with a deployment time, a deployment start time, and a deployment duration. This information assists in determining whether an impact sensor, a restraint, or an RCM needs to be

serviced or replaced. As such, the RCMs of claims 4 and 12 aid in preventing the use of improperly functioning impact sensors, restraints, and RCMs.

It has been admitted in the Office Actions that Byon does not teach a comparator for comparing a deployment time with a fault time and determining whether the fault time corresponds with the deployment time. However, the Office Actions have stated that Okada teaches tracking down the relationship between the operation state of the airbag and the failure of the operation control section of the airbag, in so doing the Office Actions have referred to paragraph [0006]. The Office Actions further state that Okada in determining the operation state of an airbag discloses a deployment time and in determining the failure of the airbag discloses a fault time. Applicants, respectfully, submit that although Okada may determine the failure of or the fault time of the operation control section of an airbag, Okada does not teach or suggest a deployment time or the storing of a fault time that is indicative of a fault within the RCM, the impact sensors, or a combination thereof.

As agreed to by the Examiner, Okada discloses determining the relationship between the operation state of an airbag and the failure of the operation control section of an air bag. This is clearly different than comparing an airbag deployment time and a fault time. The operation state of an airbag refers to the degree to which an airbag is deployed, such as whether the air bag is partially deployed or fully deployed. The failure of the operation control section of an air bag, as stated above, refers to the misoperation of an airbag igniter or airbag igniter controller. For argument sake, assuming that the failure of the operation control section of an air bag is the same as the fault time referred to in claims 4 and 12, which there is no evidence thereof, an operation state of an airbag is unmistakably different that a deployment time of an airbag. Thus, Okada fails to teach or suggest any comparison including a deployment time.

Okada determines the relationship between the state of an airbag and the failure of the operation control section of the airbag. In general, an airbag deployment system typically includes two operational sections, a first section

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that determines when to trigger or deploy an airbag, and a second section that controls the actual operational deployment of the airbag. The latter or second section may be referred to as the "operation control section of the air bag", as stated in Okada. Okada determines the fault time with the second section or the operation control section of an airbag deployment system, whereas the RCMs of claims 4 and 12 store the fault times associated with the first section or with the trigger control section of an airbag deployment system.

There is a clear and distinct difference between the circuitry and control devices used to trigger an airbag and the devices used to control the actual deployment of and/or the manner in which an airbag is deployed. For example, the memories of claims 4 and 12 store fault times associated with the impact sensors and the RCMs, rather than the fault times associated with an airbag igniter or airbag igniter controller. This is also inferred in the controller limitations of the RCMs, which state that the controllers determine when to deploy a restraint.

Also, an airbag igniter controller is not the same as the RCM of claims 4 and 12. An airbag igniter controller is designed for a specific operation controlling the manner in which an airbag is deployed. An RCM, on the other hand, controls the trigger timing of an airbag. The RCM may monitor whether restraints are operating appropriately, store fault times, compare deployment times with fault times, and record time stamps; none of these functions are performed by an airbag igniter controller. In addition, there is no suggestion or teaching in Okada to the contrary.

The Office Actions have also stated that it would have been obvious to combine Byon and Okada in order to track down the cause of the collision with small memory capacity. The modules of claim 4 and 12 allow one to determine whether an impact sensor, a restraint, or an RCM needs to be serviced or replaced this is clearly different than the tracking down the cause of a collision with small memory capacity, besides the limitations of "tracking down the cause

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of a collision with small memory capacity" are not recited in either of claims 4 or 12.

Moreover, in addition to not teaching or suggesting the limitations of comparing a deployment time with a fault time, determining whether the deployment time corresponds with the fault time, and the fault time being indicative of a fault with an RCM or a impact sensor, neither Byon nor Okada alone or in combination teach or suggest the stated limitations in combination with the additional limitations recited in claim 12. The additional limitation of claim 12 are specifically the use of an indicator, the storing of a deployment start time and duration, the storing of a fault time, and the signaling via the indicator when the fault time corresponds to the deployment start time and duration.

Thus, Byon and Okada alone or in combination do not teach or suggest each and every element recited in claims 4 and 12 and the *prima facie* case of obviousness has not been met, as required under 35 U.S.C. 103(a) and as stated in MPEP 2143. Therefore, claims 4 and 12 are novel, nonobvious, and are in a condition for allowance. Since the rejections have been overcome for claims 4 and 12 and since claims 5-6 and 13-15 depend from claims 4 and 12, respectively, claims 5-6 and 13-15 are also novel, nonobvious, and are in a condition for allowance for at least the same reasons.

In regards to claims 15, 23, and 26, the Office Actions state that neither of the prior art references teach a memory device that is uneraseable, unresettable, and unoverwritable. Applicants agree. The Office Actions state that it would have been obvious to substitute a storage device for another storage device. Applicants, respectfully, traverse.

As stated in previous Responses, Byon teaches away from the memory devices of claims 15, 23, and 26. Referring to MPEP 2141.02, the prior art must be considered in its entirety, including disclosures that teach away from the claims. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). Byon discloses a memory that is preferably erasable and that can be reset or cleared. Okada discloses in paragraph [0038] the

use of a memory, such as EEPROM. EEPROM stands for Electrically Erasable Programmable Read Only Memory. Nowhere in Byon or Okada is there any suggestion to a memory that is uneraseable, unresettable, and unoverwritable or any single component thereof. Also, throughout both Byon and Okada the ability to erase or reset memory and/or parameters is discussed. Thus, in view of Byon and Okada it would not have been obvious to utilize the memory device of claims 15, 23, and 26.

Thus, it is not inherent or obvious in view of Byon and Okada to use a memory that prevents the data from being reset, erased, and overwritten. Therefore, claims 15, 23, and 26 are novel, nonobvious, and are in a condition for allowance at least with regards to the nonobvious limitation of a memory device that is uneraseable, unresettable, and unoverwritable.

In regards to claim 24, the Office Actions state that Byon teaches the storing of a deployment end time and refers to col. 6, lines 64-67. As stated in previous responses, in col. 6, lines 64-67 and in col. 7, line 1, Byon stores a transmission time of an airbag control signal and an expansion time of an airbag. Byon discloses the time when an airbag is enabled and the time when the airbag is actually expanded or deployed. The storage of an airbag enablement time and an airbag deployment time is not the same as the storage of a deployment end time. The storage of a deployment end time is not disclosed in the stated lines or anywhere else in Byon, and any suggestion that the references disclose or suggest such use is improper hindsight in view of the present application. Thus, claim 24 is also novel, nonobvious, and is in a condition for allowance.

Claim 25 includes the limitation of a controller storing the operating time of a RCM. This limitation is not taught or suggested by either Byon or Okada alone or in combination. Although Byon discloses a clock generating device generating a clock signal, the generation of a clock signal is clearly not the same as the storage of an RCM operating time. Although a clock signal is a pulse or a timing signal from which, for example, an operating time may be determined, the simple generation of a clock signal does not teach or suggest the storage of or the

determining of an RCM operating time. Nowhere in either Byon or Okada is the operating time of a controller let alone an RCM taught or suggested. Thus, claim 25 is also novel, nonobvious, and is in a condition for allowance.

Claims 7-8, and 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Byon in view of Otsu (USPN 6,231,075).

Claims 7-8 and 13 are similar and are therefore discussed together. Claim 7 recites an RCM that includes an indicator that is electrically coupled to a controller. The indicator continuously indicates that the RCM has been on a vehicle that has been involved in a collision, until such time when the RCM is serviced or replaced. Claim 8 recites an RCM similar to that of claim 7, but further recites an indicator that permanently indicates that the RCM has been on a vehicle that has been involved in a collision and does not include the limitation of indicating until such time when the RCM is serviced or replaced. Claim 13 also recites an RCM such as that recited in claim 8, but further includes the indication of when a fault time corresponds with a deployment start time.

The Office Actions state that Byon does not teach an indicator electrically coupled to a controller and the indicator continuously indicating that the RCM has been on a vehicle that has been involved in a collision until such time when the RCM is serviced or replaced. Applicants agree. The Office Actions, however, state that Otsu teaches a controller continuously monitoring the waveform of the collision signal provided by the collision sensor after the squib has been initiated and that to continuously monitor the waveform until the controller is replaced or serviced would have been obvious to one of ordinary skill in the art. Applicants traverse.

Applicants submit that continuously monitoring a waveform of a collision signal is not the same as continuously indicating that an RCM has been on a vehicle that has been involved in a collision. Otsu monitors the collision sensor waveform to determine whether a collision has occurred, whereas the RCM of claims 7-8 and 13 indicates that an RCM has been on a vehicle that has been
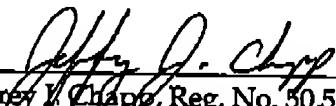
involved in a collision such that the RCM or some other safety related device may be serviced or replaced. Monitoring a collision signal is clearly and substantially different than the indicating of the status of an RCM. Also, although it may have been obvious to continuously monitor a collision signal waveform until the corresponding controller is replaced or serviced, it would not have been obvious to continuously indicate that an RCM has been on a vehicle that has been involved in a collision until such time when the RCM is serviced or replaced, especially since Otsu does not even provide such indication. Thus, neither Byon nor Otsu alone or in combination teach or suggest each and every element of claims 7-8 and 13 and the *prima facie* case of obviousness has not been met. Therefore, claims 7-8 and 13 are novel, nonobvious, and are also in a condition for allowance.

Claim 27 recites the limitations of the controller of claim 4 storing the fault time when the fault time corresponds to the deployment time. Applicants submit that these limitations are not taught or suggested by the stated references.

In light of the amendments and remarks, Applicants submit that all objections and rejections are overcome. The Applicants have added no new matter to the application by these amendments. The application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any questions or comments, she is respectfully requested to call the undersigned attorney.

Respectfully submitted,

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